

Skilled nursing facility services

R E C O M M E N D A T I O N S

3C-1 The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

COMMISSIONER VOTES: YES 16 • NO 1 • NOT VOTING 0 • ABSENT 0

- **3C-2** The Secretary should develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary to:
 - ► remove some or all of the 6.7 percent payment add-on currently applied to the rehabilitation RUG–III groups.
 - ► reallocate the money to the nonrehabilitation RUG–III groups to achieve a better balance of resources among all of the RUG–III groups.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

3C-3 The Secretary should direct skilled nursing facilities to report nursing costs separately from routine costs.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0



Section 3C: Skilled nursing facility services

The available evidence leads us to conclude that aggregate Medicare payments for skilled nursing facility (SNF) services are more than adequate in fiscal year 2004. Most beneficiaries appear to have sufficient ac-

In this section

- Are Medicare payments adequate in 2004?
- How should Medicare payments change in 2005?
- Update and distributional recommendations

cess to SNF services, although some may experience delays in getting SNF care. The growth in SNFs' capacity to provide services and in the volume of SNF services indicate no emerging problems for beneficiaries' access to SNF care. Higher-than-expected earnings growth at the end of 2003 and higher-than-expected Medicare and Medicaid SNF payments for 2004 are positive signs for SNFs' access to capital. The aggregate Medicare margin for freestanding SNFs is 15.3 percent in fiscal year 2004. However, Medicare SNF payments may not be aligned with the costs of caring for Medicare patients with different needs. Because of this, patients needing certain types of complex care may remain in the acute care hospital setting longer before accessing SNF services. Furthermore, evidence indicates mixed results for the quality of care provided in SNFs and nursing homes, and the payment system may not encourage SNFs or nursing homes to devote enough resources to quality improvement. For this reason, we need to develop ways to measure and reward quality in this sector.

Medicare beneficiaries needing short-term skilled care (nursing or rehabilitation services) on a daily basis in an inpatient setting following a medically necessary hospital stay of at least three days qualify to receive covered services in skilled nursing facilities (SNFs). These services may be provided either in freestanding or hospital-based SNFs, with freestanding SNFs representing about 90 percent of all SNFs. A freestanding SNF is typically part of a nursing home that also provides residential long-term care, which Medicare does not cover.

With approval from CMS, certain Medicare-certified hospitals (typically small, rural hospitals and critical access hospitals) may also provide extended care skilled nursing services in the same hospital beds they use to provide acute care services. These are called swing bed hospitals. Beginning July 1, 2002, Medicare pays swing bed hospitals that are not critical access hospitals according to the SNF prospective payment system (PPS). Critical access hospitals continue to receive payment for their swing beds based on their costs of providing care. (We do not include an analysis of swing bed hospitals in this report.)

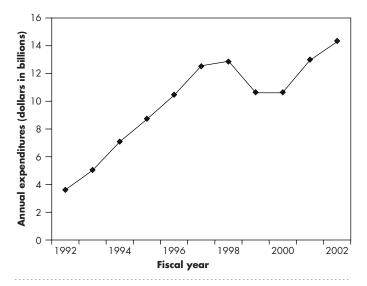
In July 1998, the Medicare payment system for SNFs underwent major changes when Medicare adopted a prospective payment system for SNF services. Previously, SNFs were paid on the basis of their costs subject to some limits. Currently, the SNF payment system pays SNFs a set amount for each day of care, adjusted for the case mix of the patients. These per diem payment rates cover all routine, ancillary, and capital costs, as well as costs for many items and services previously reimbursed under Medicare Part B.²

Trends in Medicare spending for SNF services show the effects of the PPS. Between fiscal years 1992 and 2002, spending grew at an average annual rate of 15 percent, with a noticeable dip in spending occurring in fiscal years 1999 and 2000 (Figure 3C-1). Total Medicare spending for SNF services in fiscal year 2002 was \$14.5 billion, about 5.6 percent of total Medicare spending for all services. This total represents the Medicare program's payments for covered SNF services and does not include beneficiaries' payments for cost-sharing obligations.

The Congressional Budget Office (CBO) projects that Medicare expenditures for SNF services will grow by about 5.4 percent per year from fiscal years 2003 to 2008. This is a slower rate of growth in SNF spending than occurred before the implementation of the SNF PPS.

FIGURE 3C-1

Medicare spending for skilled nursing facility services increased from 2000 to 2002



Note: Spending is for Part A services only.

Source: CMS, Office of the Actuary, 2003.

Are Medicare payments adequate in 2004?

The available evidence suggests that Medicare payments to SNFs in 2004 are more than adequate, although problems with the distribution of payments within the SNF PPS persist. Overall, our analysis finds no major changes in any of the market factors we examine that would indicate problems for beneficiaries needing SNF services. The market factors we examine include:

- beneficiaries' access to care,
- changes in the supply of SNFs (i.e., availability of facilities and beds),
- changes in the volume of services (i.e., number of discharges, bed days, and length of stay),
- changes in the quality of care, and
- SNFs' access to capital.

Furthermore, our analysis of the relationship between Medicare payments and Medicare costs in fiscal year 2004 suggests that payments will be sufficient to cover SNFs' costs of caring for Medicare beneficiaries in 2005.

Beneficiaries' access to care

The majority of beneficiaries appear to have little or no delay in accessing SNF services, especially if they need rehabilitation therapies. However, beneficiaries with certain complex or special care needs may remain in the hospital setting longer.

The Office of Inspector General (OIG) released a series of reports in 1999, 2000, and 2001 providing the most comprehensive look at beneficiaries' access to SNF services since implementation of the SNF PPS (OIG 2001, OIG 2000, OIG 1999a).3 All three reports, based on interviews with over 200 hospital discharge planners nationwide, concluded that beneficiaries needing physical, occupational, or speech therapies (otherwise referred to as rehabilitation therapies) have little or no delay in accessing SNF services. However, beneficiaries needing other types of complex care or special services (for example, intravenous therapy, dialysis, specialized beds, expensive prescription drugs, or specialized feeding) may experience delays of a few days, weeks, or longer in accessing these services. This is consistent with the incentives in the payment system, which generally pays higher rates for patients needing rehabilitation services than for patients with other types of needs. Patients who cannot access SNF services typically stay longer in the acute care hospital. It is not clear that remaining in the hospital longer is detrimental to the patient.

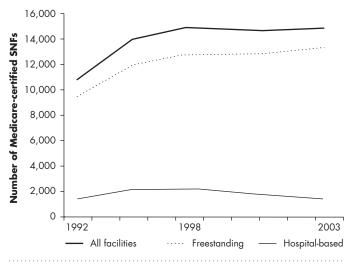
MedPAC's own discussions with hospital discharge planners support these findings. Because comprehensive reports of beneficiary access did not exist for 2002 and 2003, we contacted discharge planners to get a sense of how the OIG's findings might be changing over time.⁴ In October 2002, we convened a focus group of 15 hospital discharge planners from urban and rural areas. In October 2003, we conducted follow-up interviews with these same discharge planners. Both times, they indicated that patients needing rehabilitation services in SNFs generally had no delays in accessing these services, but that patients with other types of special needs might experience delays. These findings were similar to the OIG's findings, and do not appear to be changing substantially over time.

Changes in the supply of SNFs

We find that the overall supply of Medicare-certified SNFs and SNF beds is stable from 2002 to 2003, suggesting that beneficiaries' access to SNF services remains unchanged. Between 1998 and 2003, the total number of Medicarecertified SNFs increased slightly, with the number of

FIGURE 3C-2

Number of freestanding SNFs that are Medicare certified increased, while the number of hospital-based SNFs decreased to 1993 levels



Note: SNF (skilled nursing facility).

Source: MedPAC analysis of CMS Online Survey, Certification, and Reporting System (OSCAR) data. 1992–1996 data from ProPAC, Medicare and the American Health Care System: Report to the Congress, June 1997.

Medicare-certified freestanding SNFs increasing and the number of Medicare-certified hospital-based SNFs decreasing (Figure 3C-2). We also find evidence that freestanding SNF beds may substitute for hospital-based SNF beds in areas where hospital-based SNFs close.

The number of Medicare-certified freestanding SNFs increased by 4.6 percent between 1998 and 2003.⁵ Furthermore, the availability of Medicare-certified freestanding SNF beds in most areas has increased. The average number of Medicare-certified freestanding SNF beds in the almost 3,500 hospital service areas (HSAs) nationwide grew from 411 in 1997 (before the SNF PPS) to 420 in 2001 (after the SNF PPS) (White 2003a).

In contrast, the number of Medicare-certified hospitalbased SNFs decreased by about one-third, from 2,173 to 1,463 between 1998 and 2003. Although this drop in the number of hospital-based SNFs seems relatively large, it follows a period from 1992 to 1998 in which the number of hospital-based SNFs increased by 61 percent. Thus, the current number of Medicare-certified hospital-based SNFs is approximately the same as the number that were Medicare certified in 1993.

Hospital-based SNFs are continuing to leave Medicare, at a rate of about 9 percent per year from 2001 to 2003 (see

text box, p. 125). Between 1998 and 2003, hospital-based SNFs were more likely to exit the Medicare program if they

- were new to the market,
- were for profit (especially members of chains),
- had a higher proportion of patients with high pharmaceutical costs (White 2003b), or
- were located in urban areas (Table 3C-1).

Among hospital-based SNFs, those that were for profit or located in urban areas were more likely to exit Medicare

Active in 1997	Exited 1998–2003	Percent exited	
2,125	652	31%	
1,379	530	38	
741	122	16	
1,357	354	26	
430	229	53	
338	69	20	
	1,379 741 1,357 430	1997 1998-2003 2,125 652 1,379 530 741 122 1,357 354 430 229	

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of 2002 Provider of Services file from CMS.

Although hospital-based SNFs continue to leave Medicare, evidence suggests that growth in Medicarecertified freestanding SNF beds compensates for the loss of hospital-based SNF beds. In areas that lost one or more hospital-based SNFs, we find a substantial increase in the average number of Medicare-certified freestanding SNF beds. For example, in areas that had only one hospitalbased SNF in 1997 and none in 2001, the average number of Medicare-certified freestanding SNF beds in the area increased from 336 to 352 over the period (White 2003a).

In addition to freestanding SNFs, we find that other settings—such as long-term care hospitals and inpatient rehabilitation facilities—appear to provide substitute care settings for at least some types of patients previously cared for by hospital-based SNFs. In areas that lost a hospitalbased SNF between 1997 and 2001, the number of Medicare days in long-term care hospitals and inpatient rehabilitation facilities increased significantly (White 2003a).

Changes in the volume of services

Recent growth in the volume of SNF services—defined as number of discharges, number of covered days, and average length of stay—suggests continued access to SNF care for beneficiaries. The volume of SNF services increased between 2000 and 2001, with total payments to SNFs increasing by about 22 percent, total number of Medicare admissions to SNFs increasing by about 7 percent, covered days increasing by 9 percent, and average length of stay increasing by 2 percent (Table 3C-2).

Some of the increase in total SNF payments between 2000 and 2001 was due in part to a temporary payment increase

Volume of SNF services increased in 2001

Volume measure	1997	1998	1999	2000	2001	change, 2000–2001
Payment (billions)	\$11.0	\$11.3	\$9.5	\$10.4	\$12.7	22%
Average payment/day	\$233	\$250	\$223	\$236	\$266	13
Admissions (1,000s)	1,890	1,885	1,796	1,824	1,950	7
Covered days (1,000s)	47,245	44,469	42,412	43,811	47,913	9
Average days/discharge	25.0	23.6	23.6	24.0	24.6	2

Note: SNF (skilled nursing facility). Data include Puerto Rico, Virgin Islands, and unknown. Data do not include swing bed units.

Source: CMS. Data were developed by CMS' Office of Research, Development, and Information from Inpatient SNF MedPAR stay records.

Dorcont

Why do hospital-based SNFs leave Medicare?

ospital-based SNFs may choose to leave the Medicare program for many reasons, some L related directly to Medicare SNF payments and others not. The reasons directly related to Medicare SNF payments stem in part from the structure of the SNF payment system.

Designers of the SNF prospective payment system (PPS) recognized only part of the higher costs of hospital-based SNFs in the SNF payment rates that took effect beginning in 1998. Before 1998, Medicare paid SNFs based on their costs, subject to some limits. Hospital-based SNFs' costs were generally much higher than freestanding SNFs' costs. The Balanced Budget Act of 1997 required that the formula used to calculate payment rates be based on the full per diem costs for freestanding SNFs and half the differential between hospital-based and freestanding SNFs' per diem costs. Therefore, hospital-based SNFs with very high costs were, by design, paid less than their costs under the SNF PPS.

Given this situation, we would expect hospital-based SNFs with higher-than-average costs to have left the Medicare program after the implementation of the new payment rates. Evidence suggests that they did. Hospital-based SNFs that experienced more than a 40 percent decline in payments after the implementation of the SNF PPS had a higher-than-average exit rate from the program from 1998 to 2000 (White 2003b). Also, hospital-based SNFs that closed reported average per diem costs in 1998 that were approximately 43 percent higher than those reported by hospital-based SNFs that remained open (Figure 3C-3).

In addition, hospitals make business decisions to close their hospital-based SNFs for a number of reasons, including:

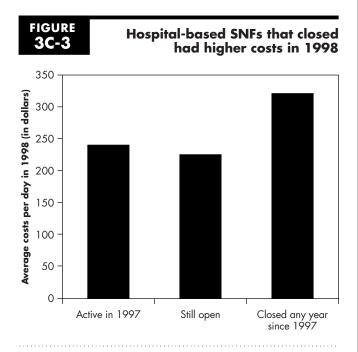
Increased demand for acute care hospital beds— Acute care hospital occupancy rates have increased in recent years at the same time that the nation has experienced a shortage of nurses. In response, some hospital administrators report that they have shifted beds and nurses from the SNF to their acute care units. In some cases, they closed the SNFs altogether.

State and federal regulatory issues—Some hospital administrators report that regulatory requirements at the state and federal level for hospital-based SNFs have increased over time, making it more difficult to operate these units.

What happens to patients when hospital-based SNFs close?

It appears that patients who would have been cared for in hospital-based SNFs are distributed among the range of other options available in the area after their discharge from acute care hospitals. When a hospitalbased SNF closes in an area, the probabilities that patients remain in acute care hospitals, or go to longterm care hospitals, inpatient rehabilitation facilities, freestanding SNFs, or home all increase.

It is difficult to measure exactly how these closures affect patients' outcomes of care. Mortality rates, a crude outcome measure, do not appear to change. We are analyzing other outcomes.



Note: SNF (skilled nursing facility)

Source: MedPAC analysis of 1998 skilled nursing facilities cost report data and 2003 Provider of Services file from CMS.

(continued next page)

Why do hospital-based SNFs leave Medicare? (continued)

What happens to Medicare spending in areas where hospital-based SNFs close?

The evidence indicates little overall change in Medicare spending in these areas. Decreases in Medicare spending for hospital-based SNF services are typically offset by increased spending for acute care hospital services, long-term care hospital services,

inpatient rehabilitation services, and freestanding SNF services. For example, spending for hospital-based SNF services, on average, decreases by \$186 per patient discharged from an acute care hospital in areas where hospital-based SNFs close. However, spending for freestanding SNF services increases by \$125 per hospital discharge in these areas (White 2003a). ■

that took effect in April 2001 (a 16.66 percent increase to the nursing component of SNF payment rates mandated by the Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000). However, about 40 percent of the increase in total SNF payments resulted from increases in the use of SNF services.

Changes in the quality of care

Two important questions arise in relation to SNF quality in the context of Medicare payment rates:

- How has the quality of care in SNFs changed since implementation of the SNF prospective payment system?
- What effect do Medicare payment rates have on SNF quality?

How has the quality of SNF care changed?

The available evidence regarding quality of care in SNFs since implementation of the SNF PPS is mixed. Evidence from studies of Medicare SNF patients shows no change or even slight improvements in some basic quality measures, such as activity of daily living (ADL) scores, walking scores, rates of rehospitalization, and incidence of mortality since the SNF PPS (Gifford and Angelelli 2002). Also, CMS finds improvements (i.e. reductions) between 2002 and 2003 in the percentage of short-stay SNF patients who experienced pain (CMS 2004).

Our analysis of adjusted SNF rehospitalization rates among Medicare SNF patients from 1999 to 2001 for five potentially preventable conditions—congestive heart failure, respiratory infection, electrolyte imbalance, sepsis, and urinary tract infection—suggests mixed results. After controlling for diagnosis and functional severity of patients, we find slight increases in three of the five measures and decreases or no change in the remaining two measures (Table 3C-3). Since we compute these rates from all SNF stays, not a sample of SNF stays, any changes we observe are actual changes within the SNF population.

Many more researchers have studied the quality of care provided in nursing homes as a whole (not just SNFs). These studies tend to find a drop in nurse staffing levels (attributable in part to the nursing shortage in 2001 and 2002) and an increase in the number of reported deficiencies since implementation of the SNF PPS (Kilpatrick and Roper 2002, Hodlewsky et al. 2001, White 2003d). One study of longer-stay nursing home residents found negative effects of the SNF PPS on quality of care, as measured by increased probability of urinary tract infections, fractures, and unexpected weight loss, after controlling for patient severity (Konetzka 2003).

SNF patients' rehospitalization rates indicate mixed results for quality

Condition	1999	2000	2001	Percent change 1999–2001
Electrolyte imbalance	3.7%	3.7%	3.9%	5%
Respiratory infection	3.0	2.9	2.9	-3
CHF	3.2	3.3	3.6	13
Sepsis	1.2	1.2	1.2	0
Urinary tract infection	2.1	2.2	2.2	5

SNF (skilled nursing facility). CHF (congestive heart failure). In calculating rehospitalization rates, we adjust for SNF patients' expected rates of rehospitalization (based on patient characteristics and conditions). The data contain all SNF admissions for the time period presented.

Source: MedPAC analysis of Medicare claims data.

We tend to assume that these findings for the nursing home as a whole reflect the situation in SNFs as well, although little research exists on the relationship between nursing home quality and SNF quality. On the one hand, it seems reasonable to assume that nursing homes would care for their SNF patients the same way they care for their long-term care patients, especially if SNF patients make up a relatively small proportion of facilities' patient populations. On the other hand, SNF patients may be different enough in the types of care they need and the resources needed to provide that care that quality measures for the nursing home as a whole are not as useful for describing the quality of care for SNF patients. More research is needed on this important topic.

How do Medicare payments affect SNF quality?

Because the evidence regarding SNF and nursing home quality since 1998 is mixed, it is important to encourage quality improvement in these settings. However, raising payments to SNFs without changing the incentives in the payment system will likely do little to encourage quality improvement (see text box, p. 133). The relationship between the level of Medicare payments to SNFs and quality of care in SNFs or in nursing homes is not well established and is complicated by:

- the nature of the SNF PPS, which provides incentives to reduce costs but not to improve quality,
- Medicare's small share of nursing home payments relative to Medicaid, and
- the challenge of measuring quality in this sector.

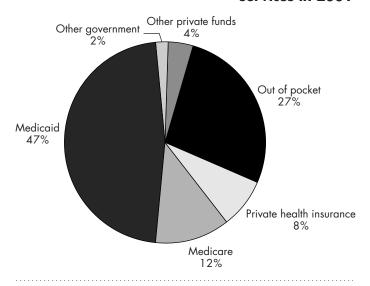
The SNF PPS by design allows SNFs that lower their costs of caring for SNF patients to keep any difference between Medicare's payments and their costs, regardless of their performance on quality. Some SNFs may respond to these incentives by lowering costs in ways that could potentially lead to stinting on quality.

Medicare represents only about 12 percent of nursing homes' revenues (25 percent of revenues in many large for-profit nursing home chains), while Medicaid represents almost half of revenues (Figure 3C-4). Therefore, we would expect Medicaid rates to have a larger effect on quality of care in nursing homes than Medicare rates.

Researchers use many different measures of quality in the SNF and nursing home sectors. The various measures all reflect different dimensions of care and sometimes lead to

FIGURE 3C-4

Medicaid accounted for the largest share of funds for nursing home services in 2001



Source: Levit et al. 2003

differing results. Over the coming year, MedPAC plans to analyze the issue of SNF and nursing home quality measurement in more depth.

SNFs' access to capital

The evidence regarding SNFs' ability to access capital is mixed, although the situation appears to be improving. Determining how well SNFs are actually performing financially is difficult because no single data source or measure provides reliable information on total overall financial performance. Medicare cost reports are not designed to provide detailed information on SNFs' (or nursing homes') overall financial picture, and other financial statements are difficult to interpret (see discussion in Chapter 3, p. 63).

Nonetheless, we do have information on how access to capital has changed recently and how Medicare payments affect SNFs' access to capital. Since hospital-based SNFs are a small proportion of all SNFs and access capital through their parent hospital organizations, we focus the discussion in this section on freestanding SNFs' access to capital.

How has SNFs' access to capital changed in 2004?

Bankruptcies, payment uncertainties, and the costs of liability insurance may have negatively affected SNFs' access to capital in recent years. The situation appeared to have worsened in the early part of 2003, caused in part by uncertainty surrounding Medicare and Medicaid payments, but now appears to be improving. Large Medicare payment increases, higher-than-expected earnings growth in many large for-profit SNF chains, and higher-than-expected Medicaid nursing home payments in many states at the end of 2003 have prompted a substantial improvement in investors' outlook for this sector (Merrill Lynch 2003a, b).

Access to capital varies by nursing home control, size, and whether the home is part of a larger organization. Forprofit companies dominate the industry—about two-thirds of nursing homes are for profit. However, the 10 largest nursing home chains account for only about 16 percent of nursing home beds.

In the past, nursing home chains have been able to access capital by issuing stock, but nursing homes did not issue public equity in 1999, 2000, or 2001 (and only one company did in 2002). The lack of equity issuances during this period coincided with the bankruptcy of five of the major chains in 1999 and 2000. However, the stronger forprofit chains continue to access capital through the debt market and secured credit facilities.

Access to capital for smaller nursing homes and for many nonprofit nursing homes has always been limited. Smaller nursing homes often have to issue unrated bonds at higher interest rates. If these smaller nursing homes are part of a larger organization with assisted living or continuing care retirement communities, they may have greater access to capital. Some can resort to bank lending, and others may be able to finance facilities through Real Estate Investment Trusts (REITs), who then lease back the properties to the nursing homes. Federally guaranteed loans, another source of funding, can be used for new construction, major rehabilitation, and refinancing. Approximately \$1.2 billion in loans were insured in fiscal year 2002.

Nursing homes that are nonprofit and not part of a chain have had less access to capital markets than their larger for-profit counterparts. From a peak of over two billion dollars in 1998, annual public debt issuance—on which nonprofit facilities rely—has declined to about half a billion dollars in 2002.

According to recent industry financial reports, SNFs' access to capital may have improved in the later part of 2003. Merrill Lynch indicates that "the outlook for nursing homes has improved dramatically" and that long-term care sector stock prices have grown at more than twice the rate of the S&P 500 index (Merrill Lynch 2003a). One of the largest for-profit SNF chains, for example, reported a "significant acceleration" of earnings growth because of a large increase in Medicare SNF payments, a leveling-off of labor costs due to a slowdown in wage growth, and Medicaid payment rates that were higher than expected (Merrill Lynch 2003b).⁶

Are Medicare payments responsible for SNFs' access to capital?

Because a larger share of nursing home revenues come from Medicaid, Medicaid payments likely affect nursing homes' access to capital at least as much as Medicare payments. A recent study of nursing home access to capital by FitchRatings indicates that a large part of the reason for the worsening investor outlook on this sector in early 2003 was investors' worries about shrinking state budgets (FitchRatings 2003). Investors feared that states would increasingly see a need to cut back on spending for nursing home services, a large component of states' Medicaid budgets.

Despite these fears, findings from the Kaiser Commission on Medicaid and the Uninsured indicate that nursing homes fared better than other providers in terms of Medicaid payments for 2003 and 2004 (Kaiser 2003). They report that some states did cut nursing home payments in 2003 and 2004 (17 and 19 states, respectively). However, many more states increased nursing home payments in these years (33 in 2003 and 29 in 2004). The remaining states froze payments to nursing homes. The report finds that "nursing homes were the provider group most likely to be given a rate increase in both years." Some states raised taxes on nursing homes and other provider groups to help finance their rates. Nonetheless, it appears that nursing homes are being treated better than other providers when Medicaid budgets are under fiscal pressure. It is unclear whether this will continue in the future if states' budget conditions worsen.

Payments and costs for 2004

In examining current fiscal year 2004 payments and costs, we use an aggregate Medicare margin for SNFs. (We compute the Medicare margin as the difference between total Medicare payments and costs, as a percentage of

Medicare payments.) Conceptually, this represents the percentage of Medicare revenues the providers keep.

In the aggregate, we estimate the Medicare margin for the almost 90 percent of all SNFs that are freestanding (located in nursing homes) to be about 15.3 percent in fiscal year 2004. This figure represents an increase of about 4 percentage points over the 11 percent we estimated for freestanding SNFs in fiscal year 2003. The increase is due to two factors:

- higher reported margins in fiscal year 2001 (19 percent) than in fiscal year 2000 (17 percent), and
- a 3.26 percent increase in SNFs' fiscal year 2004 base rates (in addition to the full 3.0 percent update to the base rates for fiscal year 2004) to correct for errors in forecasting the SNF market basket index for fiscal years 2000 through 2003.

In contrast to the positive Medicare margin for freestanding SNFs, the aggregate Medicare margin for hospital-based SNFs was -62.7 percent in 2001.

Measuring hospital-based SNF Medicare margins in the context of hospital cost allocation is difficult, and we are unsure what the Medicare margin for hospital-based SNFs means in the context of an efficient SNF provider. Hospitals traditionally allocate a portion of their entire overhead costs among all of the units in their facilities, including their SNF units. While this is a standard, accepted practice, it likely means that hospital-based SNF units record higher costs than they otherwise would have if they had recorded only the costs of providing services to SNF patients. In addition, hospitals may have higher cost structures than freestanding nursing homes. If this is the case, though, it is not clear whether Medicare should recognize these costs as those of efficient providers.

The Commission remains concerned about the numbers of hospital-based SNFs that are leaving the Medicare program and about the negative aggregate Medicare margin for these providers. We have several ongoing research projects examining what happens to patients in areas where hospital-based SNFs close and differences in the types of patients, outcomes of care, and cost trends over time between hospital-based and freestanding SNFs.

How should Medicare payments change in 2005?

In recommending Medicare payment changes for fiscal year 2005, MedPAC first considers whether payments are adequate in fiscal year 2004 and then examines how costs are likely to change in fiscal year 2005. In the previous section, we found that Medicare payments to SNFs appear more than adequate in fiscal year 2004. In this section, we discuss why we do not expect to see big changes in SNF costs in fiscal year 2005.

SNFs' costs of providing care have changed dramatically over the years as payment incentives have changed. Medicare SNF spending grew rapidly during the 1980s and 1990s, largely because Medicare paid SNFs based on their reported costs and placed relatively few limits on the costs SNFs could report. Both the General Accounting Office (GAO) and the OIG found that the reported costs during this period were excessively high (GAO 1998, OIG 1999b). SNF spending grew an average of about 23 percent per year between 1990 and 1996 (MedPAC 2002). Much of the spending growth was attributable to the increased provision of ancillary services.8

Under the PPS. SNFs have financial incentives to decrease their costs, and evidence indicates that freestanding SNFs have responded accordingly by:

- negotiating lower prices for contract therapy (physical, occupational, and speech therapists) and for pharmaceuticals,
- substituting lower-cost labor for higher-cost labor (Liu et al. 2000, White 2003c), and
- decreasing the number of therapy staff (White 2003e).

In addition, research suggests that the overall amount of therapy SNFs provide may have fallen since the SNF PPS began (Gifford and Angelelli 2002, White 2003e).

Although nursing wages may have increased for SNFs in recent years because of the nursing shortage, costs may not have risen by as much as wages if SNFs substituted lower skilled labor. Recent evidence suggests that wage growth is stabilizing.

Finally, we are aware of only one cost-increasing, qualityenhancing technology that SNFs may use to provide care to beneficiaries—vacuum assisted closure (VAC) therapy for healing wounds. However, the extent to which SNFs

are actually adopting this technology is unclear. The SNF industry reports that per diem rental charges for the device used to administer VAC therapy can amount to almost one-half of the Medicare SNF per diem payment amount. Most medical professionals agree that use of this technology for patients with serious wounds improves the quality of care for these patients and shortens the time it takes for the wounds to heal. However, a per diem payment system does not encourage SNFs to shorten the length of stay.

Update and distributional recommendations

SNFs should be able to accommodate any cost changes or adoption of technology in 2005 with the Medicare margin they have in 2004. Therefore, we recommend:

RECOMMENDATION 3C-1

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2005.

RATIONALE 3C-1

The market factor evidence generally indicates no major problems for Medicare beneficiaries in accessing quality SNF services (although we continue to monitor quality). We project the Medicare margin for freestanding SNFs to be 15.3 percent in fiscal year 2004, and we expect prior cost trends to continue. Given this, the SNF base rate appears to be more than adequate, and no update to payment rates is needed.

IMPLICATIONS 3C-1

Spending

Because this recommendation provides no update to payments for skilled nursing facility services, whereas current law updates payments for these services by the SNF market basket index, we expect this provision to reduce Medicare spending relative to current law by between \$200 million and \$600 million for fiscal year 2005 and between \$1 billion and \$5 billion over 5 years.

Beneficiary and provider

With a Medicare margin of 15.3 percent, we do not anticipate that this recommendation will have major implications for beneficiaries or for the majority of providers.

Recommendation to improve the distribution of payments

We reiterate our recommendation from last year to improve the distribution of payments in the SNF PPS.

RECOMMENDATION 3C-2

The Secretary should develop a new classification system for care in skilled nursing facilities. Until this happens, the Congress should authorize the Secretary

- remove some or all of the 6.7 percent payment addon currently applied to the rehabilitation RUG-III groups.
- reallocate the money to the nonrehabilitation RUG-III groups to achieve a better balance of resources among all of the RUG-III groups.

RATIONALE 3C-2

The Commission remains concerned that the current SNF patient classification system does not appropriately distribute resources among patients with different resource needs. SNFs who care for more patients with expensive nonrehabilitation therapy needs may not be able to operate as profitably under the SNF PPS as SNFs that care for a higher proportion of patients with short-term rehabilitation needs. This could be the reason that patients with expensive nonrehabilitation therapy needs may experience longer delays in accessing SNF services than other types of patients. This recommendation would provide a better balance of resources among patients with different resource needs within the SNF payment system.

IMPLICATIONS 3C-2

Spending

Because this recommendation suggests a redistribution of resources already in the system, we anticipate that this provision will be spending neutral.

Beneficiary and provider

This provision could potentially lead to expanded access to care for beneficiaries, if it results in payments that track more closely with the expected resource needs of different types of SNF patients and, therefore, increases incentives for providers to accept patients with high nontherapy ancillary service needs. It could also lead to a more equitable distribution of Medicare payments among SNF providers, especially those providers that care for a disproportionate

number of SNF patients with high nontherapy ancillary service needs. To the extent that hospitalbased SNFs treat more of these types of patients, this redistribution would provide them with more resources.

Below, we provide a brief explanation of how the RUG-III classification system used to adjust SNF payments works and what some of the problems with the system are.

How does the RUG-III classification system work?

SNFs assign each Medicare patient receiving care in their facility to 1 of 44 groups, called resource utilization group, version III (RUG-III). Medicare pays SNFs the pre-determined rate per day for each RUG-III group. In theory, each RUG-III group includes patients who should require similar amounts of resources. SNFs periodically assess patients' conditions, based on their need for:

- physical, occupational, or speech therapy,
- special treatments (such as tube feeding), and
- assistance with ordinary activities of daily living, such as eating and using the toilet.

The daily rate for each RUG-III group is the sum of three components:

- a fixed amount for routine services (such as room and board, linens, and administrative services),
- a variable amount reflecting the intensity of nursing care and ancillary services patients will likely require, and
- a variable amount for the expected intensity of therapy services (physical, occupational, and speech therapies).9

Medicare computes payment rates for SNF services separately for urban and rural areas, and adjusts the labor portion of the total rates to reflect the wage market conditions within each SNF's geographic location. Medicare also updates SNF payment rates each year based on the projected increase in the SNF market basket index, a measure of the national average price level of goods and services SNFs purchase to provide care.

Shortly after implementation of the SNF PPS in 1998, the Congress mandated a series of temporary payment rate increases:

- The Balanced Budget Refinement Act of 1999 (BBRA) increased rates for all 44 RUG-III groups by 4 percent from April 2000 to September 2002.
- The Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000 (BIPA) increased the nursing component of SNFs' base payment rate by 16.66 percent from April 2001 to September 2002.
- BBRA and BIPA increased payment rates for the 14 RUG-III groups that include patients needing rehabilitation therapies by 6.7 percent and rates for the 12 RUG-III groups that include patients needing certain types of complex care by 20 percent. According to current law, these increases will expire when CMS adopts a refinement to the RUG-III classification system.

What are the major problems with the RUG-III classification system?

Researchers find three major problems with the RUG-III classification system:

- It bases payments for rehabilitation therapy on the number of minutes of therapy (or the estimated number of minutes) rather than on patients' clinical characteristics.
- It does not fully account for the costs of providing nontherapy ancillary services, such as prescription drugs, and
- It bases the relative weights that allocate payments among different RUG-III groups on old data that is expensive and time consuming for CMS to update.

By paying more for rehabilitation therapy based on the number of minutes of physical, occupational, or speech therapy patients receive, the RUG-III system encourages SNFs to provide more therapy (at least to the point that they receive additional money for doing so). At the same time, the system may also provide SNFs with the incentive to stint on other needed services, such as prescription drugs and other specialty care. The SNF payment system is unusual among Medicare's prospective payment systems in the degree to which RUG-III group

assignments and payments are driven by the amount of services provided.

The RUG-III classification system was not designed to directly capture differences in patient costs that arise from nontherapy ancillary services, such as prescription drugs and respiratory therapy. Accordingly, it does a poor job of allocating resources for these services. The RUG-III groups do a relatively good job of identifying differences in patients' needs for nursing care resources. This makes sense, because the RUG-III system bases the weights assigned to its different groups on studies of nurse staffing time spent with patients (the system assumes that patients needing more nurse staffing time require more nontherapy ancillary services). Therefore, RUG-III groups capture the costs of nontherapy ancillary services only to the extent that these costs track with nursing costs. This assumption may be an increasingly poor one, however. As prescription drug and other ancillary costs increase rapidly, the system may not be correctly allocating these costs.

Finally, updating the weights for RUG-III groups is expensive and time consuming. Nurse staffing studies conducted in 1995 and 1997 form the basis for the current weights. These studies included a relatively small sample of facilities in part because the cost of a larger study would have been prohibitively high. Thus, although the weights need to be updated, the resources may not soon be available to repeat the studies.

Recommendation to collect nurse staffing information

As discussed earlier in the chapter, MedPAC is concerned about the quality of care SNF and nursing home patients receive. For this reason, we recommend collecting nursing cost information so that the Medicare program can evaluate the relationship between SNFs' nursing costs, total costs, and quality of care.

Although SNFs must report total routine costs to CMS on their annual cost reports, they do not separate out their nurse staff costs. For example, they must report wage and salary information for employees in the facility that provide care to patients, but this information likely also includes wages and salaries for therapy specialists and other non-nursing staff. In addition, because many different kinds of nurses care for patients in SNFs and nursing homes, it would be useful for SNFs to break the nursing costs down by type of nurse (i.e. registered nurses, licensed practical nurses, and nurse aides).

RECOMMENDATION 3C-3

The Secretary should direct skilled nursing facilities to report nursing costs separately from routine costs.

RATIONALE 3C-3

Studies indicate a positive relationship between nurse staffing levels and quality of care in nursing homes (HCFA 2000). While CMS already collects basic nurse staffing information in its survey and certification process, additional information on nursing homes' spending for nurse staffing will help the Medicare program better evaluate the relationship between staffing levels and the costs and quality of care. This information could also be useful in developing a SNF-specific wage index.

IMPLICATIONS 3C-3

Spending

This recommendation should not affect Medicare benefit spending.

Beneficiary and provider

This provision should have no effect on beneficiaries. Providing the additional information could result in a modest additional cost to providers.

What can Medicare do to encourage improvements in quality of care for SNF and nursing home patients?

or years, reports of nursing home quality have shown a need for improvement in the quality of care some nursing homes provide (GAO 2003). Many efforts are currently under way to improve quality in SNFs and in nursing homes, but these efforts are grafted onto a payment system that is largely neutral or even negative with respect to quality. Offering financial rewards to providers, such as SNFs and nursing homes, is an effective way of providing incentives to improve quality (MedPAC 2003). However, in the SNF and nursing home sector, quality measurement may not yet be advanced enough to form the basis for providing financial rewards.

Current efforts

One of the efforts currently under way to improve quality of care in nursing homes is CMS's nursing home quality initiative. Started in 2002, this initiative focuses on:

- · improving regulation and enforcement efforts to assure nursing homes' compliance with rules regarding patient health, safety, and quality of care,
- improving consumers' access to nursing home quality information (through advertising, print media, the telephone hotline service, and the internet).
- encouraging nursing homes to seek help from the Medicare quality improvement organizations (QIOs) to improve performance on published quality measures and develop and implement quality improvement projects, and
- encouraging more communication among federal and state agencies, QIOs, independent health quality organizations, consumer advocates, and nursing home providers regarding ways to improve nursing home quality.

According to a recent CMS press release, these efforts have resulted in about 2,500 nursing homes pursuing quality improvement efforts with help from their QIOs, nearly all nursing homes contacting their QIOs about the quality initiative, and more than 60 percent of

nursing homes attending QIO-sponsored quality workshops, among other responses. In addition, CMS finds improvement in some of the publicly reported quality measures since 2002, including decreasing reports of pain among long- and short-stay patients and decreasing use of physical restraints (CMS 2004).

As part of these efforts, CMS has recently taken steps to improve its nursing home quality measures. It is now using a set of nursing home quality measures endorsed by the National Quality Forum (NQF), a nonprofit consensus-building organization. This set includes measures for long-stay nursing home residents, for short-stay post-acute care patients, and for nursing homes as a whole. The measures for shortstay post-acute care patients are:

- the percentage of recently hospitalized patients who experienced moderate to severe pain at any time during the assessment period,
- the percentage of recently hospitalized patients with symptoms of delirium, and
- the percentage of recently hospitalized patients with pressure ulcers.

In addition to CMS's efforts, SNFs (as represented by their industry associations) have recently publicly pledged to devote more resources to patient care (Grassley 2003). Some SNF industry associations have also been advocating for research and demonstration programs to develop ways of recruiting and retaining nursing staff and have been assembling work groups to share best practices in quality improvement.

What more could be done?

More work is needed before we can appropriately measure and reward quality in SNFs and nursing homes. MedPAC's update framework suggests that Medicare payments are sufficient to provide quality care to beneficiaries, but that the SNF payment system provides little financial incentive for SNFs or nursing homes to invest in activities that would improve quality.

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What can Medicare do to encourage improvements in quality of care for SNF and nursing home patients? (continued)

Part of the problem is that it is difficult to measure quality accurately enough to provide financial rewards in the nursing home setting. Measures of quality for SNF patients are relatively few and have been developed only in recent years. While it may be possible to complement the short-stay SNF measures with the long-stay nursing home measures (we have many more of these), we need more research to better understand how long-stay nursing home measures reflect the quality of care received by the short-stay SNF patients.

Measures such as rates of rehospitalization for certain conditions and Minimum Data Set-derived measures like those that CMS reports may provide both a useful national picture of quality and information for internal analysis by individual SNFs and nursing homes. However, they may not yet be appropriate for distributing payments among providers. For example, we would not want to inadvertently penalize a facility (by withholding a financial reward) that has a higher proportion of patients with pressure ulcers because they specialize in treating pressure ulcers. We also would not want to inadvertently discourage SNFs from taking patients that enter the facilities with delirium or with pressure ulcers.

Measures of quality based on the survey and certification process, such as deficiencies and staffing levels, may also be useful. However, states often

interpret these measures differently and have varying degrees of oversight.

Thus, before we can begin to implement quality incentives for SNFs and nursing homes, we need to take stock of the SNF and nursing home quality measures currently being used. As we have outlined elsewhere in this report (Chapter 3E, p. 173 and Chapter 4, p. 214), we apply four main criteria in determining whether a particular set of quality measures can be used to provide financial incentives for quality improvement. The set of measures must be:

- well-accepted,
- collected using a standardized data collection system,
- appropriately risk adjusted, and
- sensitive enough to changes in provider behavior that providers can demonstrate improvement.

Over the next year, we plan to assess the measures currently being used and any additional measures that might be used, according to these criteria. For example, studies generally show a strong relationship between lower nurse staff turnover rates and higher quality in nursing homes (IOM 2001). This is an area for further research. ■

Endnotes

- 1 Medicare covers 100 SNF days in a spell of illness. Medicare pays 100 percent of the rate for the first 20 days of a SNF stay. From the 21st to the 100th day, beneficiaries are responsible for a copayment equal to one-eighth of the hospital deductible, or \$109.50 per day in 2004.
- The SNF per diem payment rates do not cover the costs of physician services, services of certain other practitioners (such as qualified psychologists), or dialysis services and supplies. Medicare Part B covers these services. In addition, to limit SNFs' liability for services typically outside the scope of SNF care, the Congress excluded payments for certain high-cost, low-probability ancillary services from the SNF per diem rates. Thus, Medicare pays separately when SNF patients receive emergency room care, outpatient hospital CAT scans, MRIs, and surgeries, and certain high-cost chemotherapy agents and customized prosthetic devices. However, the per diem rates do cover the costs of physical, occupational, and speech therapies, even if a physician supervises.
- 3 The OIG plans a follow up report on beneficiaries' access to SNF services in fiscal year 2005.
- 4 Ideally, we would like to use Medicare's administrative and claims data to further analyze changes in beneficiaries' access to care. However, the data were not yet available to analyze the period following major Medicare payment changes.
- Medicare certification is a requirement for Medicaid certification in some states. Thus, part of the increase in Medicare-certified facilities may be the result of Medicaidonly nursing facilities becoming dually certified for Medicare and Medicaid (in fact, the number of nursing facilities certified as Medicaid-only has declined since 1998). Although the number of SNFs in Medicare has increased, the nursing home industry as a whole has experienced declines, as the overall health of the elderly population has improved and

- competition from assisted living facilities and other alternative care sites has reduced demand for nursing home services.
- One large for-profit nursing home chain reports "that the Medicaid environment has been substantially better than anticipated earlier this year [2003]. Average Medicaid rate [increases] in the second half of the year are expected to be better than the 0–2% previously expected. Preliminary estimates for 2004 Medicaid rate increases are estimated in the 4 percent range." (Merrill Lynch 2003b)
- According to the SNF payment system in place before 1998, SNFs had limits for routine operating costs (for example, room and board) but no limits on costs for ancillary services, such as physical therapy. Separate limits applied based on location (urban or rural) and whether facilities were hospital based or freestanding, with hospital-based facilities having higher limits than freestanding facilities. In addition, new SNFs were exempt from the routine cost limits for up to their first four years of operation.
- In addition, during the 1990s, the OIG found that some SNFs were billing Medicare for therapy that was not medically necessary, that was provided by staff without the proper skill level, and that may not have been provided at all. They also found that, in some cases, Medicare may have been paying SNFs as much as 86 percent more than the SNFs actually paid their contractors to provide the therapy. These improper billing practices likely contributed to Medicare's spending increases for SNFs over the period (OIG 1999b).
- 9 For placing patients in certain RUG–III groups, SNFs may estimate the number of minutes of therapy the patient will need on the 5-day and the readmission assessments. For placing patients in other RUG-III groups, SNFs must provide a minimum amount of therapy within a certain time period.

References

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2004. Enhanced set of quality measures now available at Medicare's easier-to-use nursing home compare. Press release, CMS News, Washington, DC. January 22.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2003. CMS health care industry market update: Nursing facilities. Baltimore, MD: CMS. May 20.

Cohen, Joel W., and William D. Spector. 1996. The effect of Medicaid reimbursement on quality of care in nursing homes. Journal of Health Economics 15: 23-48.

Dalton, Kathleen and Hilda A. Howard. 2002. Market entry and exit in long-term care: 1985-2000. Health Care Financing Review 24, no. 2 (Winter): 17-32.

FitchRatings. 2003. 2003 outlook for nonprofit nursing homes. http://www.fitchratings.com.

General Accounting Office. 2003. Nursing home quality: Prevalence of serious problems, while declining, reinforces importance of enhanced oversight, no. GAO-03-561. Washington, DC: GAO. July.

General Accounting Office. 1998. Balanced budget act: Implementation of key Medicare mandates must evolve to fulfill congressional objectives, no. T-HEHS-98-214. Washington, DC: GAO. July.

Gifford, D., and Angelleli, J., Center for Gerontology and Health Care Research, Brown University. 2002. Presentation at the Academy for Health Services Research conference and MedPAC staff discussions with authors. June 25.

Grassley, Charles, U.S. Senate Office. 2003. Grassley secures pledges to direct additional federal dollars to nursing home resident care. Press release, Grassley Senate Office, Washington, DC. October 27. http://grassley.senate.gov/releases/2003/p03r10-27a.htm.

Health Care Financing Administration, Department of Health and Human Services. 2000. Report to Congress: Appropriateness of minimum nurse staffing ratios in nursing homes. Washington, DC, HCFA.

Hodlewsky, R. T., V. Kumar, Y. Deokhee, et al. 2001. Trends in deficiencies associated with nursing facility PPS. Seniors Housing and Care Journal 9, no. 1: 29-42.

The Institute of Medicine, Committee on Improving Quality in Long-Term Care, Division of Health Care Services. 2001.

Improving the quality of long-term care. Washington, DC: National Academy Press.

Kaiser Commission on Medicaid and the Uninsured. 2003. States respond to fiscal pressure: State Medicaid spending growth and cost containment in fiscal years 2003 and 2004: Results from a 50-state survey. Kaiser Commission on Medicaid and the Uninsured. September. www.kff.org/Medicaid.

Kilpatrick, K. and W. L. Roper, Department of Health Policy and Administration, School of Public Health, University of North Carolina. 2002. Effects of the Medicare prospective payment system on the quality of skilled nursing care. Chapel Hill, NC: UNC.

Konetzka, R. Tamara. 2003. Effects of Medicare payment changes on quality of care in nursing homes. UNC Working Paper. Chapel Hill, NC: UNC. April.

Lakdawalla, D., and T. Philipson. 2002. The rise in old-age longevity and the market for long-term care. American Economic Review 92, no. 1 (March): 295-06.

Levit, Katharine, Cynthia Smith, Cathy Cowan, et al. 2003. Trends in U.S. health care spending, 2001. Health Affairs 22, no. 1 (January/February): 154-164.

Liu, K., and K. Black, The Urban Institute. 2002. Hospital-based and freestanding skilled nursing facilities: Any cause for differential Medicare payments? Working paper, The Urban Institute, Washington, DC.

Liu, K., J. Harvell, and B. Gage. 2000. Post-acute care issues for Medicare: Interviews with provider and consumer groups, and researchers and policy analysts, contract no. 100-97-0010. Report for the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services. March.

Medicare Payment Advisory Commission. 2003. Report to the Congress: Medicare payment policy. Washington, DC: MedPAC. March.

Medicare Payment Advisory Commission. 2002. Report to the Congress: Medicare payment policy. Washington, DC: MedPAC. March.

Merrill Lynch. 2003a. Healthcare services: A stealth bull market in health services, highlights from ML Health Services Conference. December 5.

Merrill Lynch. 2003b. Manor Care Inc.: Highlights from ML Health Service Conference. http://www.cwes01.com/9093/24013/ ds/07195943.pdf. December 4.

Nyman, J. A. 1989. Excess demand, consumer rationality, and the quality of care in regulated nursing homes. Health Services Research 24: 105-128.

Office of Inspector General, Department of Health and Human Services. 2001. Medicare beneficiary access to skilled nursing facilities, no. OEI-02-01-00160. Washington, DC: OIG. July.

Office of Inspector General, Department of Health and Human Services. 2000. Medicare beneficiary access to skilled nursing facilities, no. OEI-02-00-00330. Washington, DC: OIG. September.

Office of Inspector General, Department of Health and Human Services. 1999a. Early effects of the prospective payment system on access to skilled nursing facilities, no. OEI-02-99-00400. Washington, DC: OIG. August.

Office of Inspector General, Department of Health and Human Services. 1999b. Physical and occupational therapy in nursing homes: Cost of improper billings to Medicare, no. OEI-09-97-00122. Washington, DC: OIG. August.

O'Neill, Ciaran, Charlene Harrington, Martin Kitchener, et al. 2003. Quality of care in nursing homes: An analysis of relationships among profit, quality, and ownership. Medical Care 41, no. 12: 1318-1330.

Weech-Maldonado, Robert, Gerald Neff, and Vincent Mor. 2003a. Does quality of care lead to better financial performance? The case of the nursing home industry. Health Care Management Review 28, no. 3 (July-September): 201-216.

Weech-Maldonado, Robert, Gerald Neff, and Vince Mor. 2003b. The relationship between quality of care and financial performance in nursing homes. Journal of Health Care Finance 29, no. 3 (Spring): 48–61.

White, Chapin, National Bureau of Economic Research. 2003a. Did Medicare spending and use patterns change in areas where hospital-based SNFs closed? Working paper being developed under MedPAC contract.

White, Chapin, National Bureau of Economic Research. 2003b. Do skilled nursing facilities receive adequate reimbursement from Medicare? Working paper, Harvard University, Cambridge, MA.

White, Chapin, National Bureau of Economic Research. 2003c. Do unprofitable individuals face limited access to skilled nursing facility care? Working paper, Harvard University, Cambridge, MA. April 16.

White, Chapin, National Bureau of Economic Research. 2003d. Medicare's new prospective payment system for skilled nursing facilities: Effects on staffing and quality of care. Working paper, Harvard University, Cambridge, MA. September 11.

White, Chapin. 2003e. Rehabilitation therapy in skilled nursing facilities: Effects of Medicare's new prospective payment system. Health Affairs 22, no. 3 (May/June): 214-223.